



# **NATIONAL PARK SERVICE**

## **Environmental Audit Program**

### **EnviroCheck Sheet**

*Pesticide Management*  
*June 2002 Update*

#### **PESTICIDE MANAGEMENT**

Parks may use pesticides inside buildings to exterminate pests, or outside to control invasive species. Pesticides are substances used to destroy, repel, or control the growth of any viral, microbial, plant, or animal pest, or otherwise unwanted species. They include insecticides (e.g., wasp killer), herbicides (e.g., crabgrass control chemicals), rodenticides (e.g., rat poison), algacides (e.g., algae inhibitors for water), and fungicides (e.g., mildew-resistant paint).

The National Park Service (NPS) has been a leader among federal agencies in the implementation of its Integrated Pest Management (IPM) program. With over 80 million acres of land, 45,000 buildings and cultural landscapes ranging from croplands to historic rose gardens, the NPS faces every conceivable pest problem. Since implementing an IPM program in the early 1980's, the Park Service has reduced pesticide use by over 60 percent while improving the effectiveness of their pest management efforts.

The storage, use, and disposal of pesticides is regulated at the federal level, and supplemented for parks by guidance found in NPS-77, Chapter 2, "Integrated Pest Management." However, more stringent state and/or local regulations may exist, and must be considered by auditors. The park IPM program does not cover insect repellents that are used personally and applied directly to the body or clothing or pesticides that are not purchased by the NPS.

Other NPS EnviroCheck Sheets related to pesticide management may include Respiratory Protection, if respirators are used during their application, Universal Waste Management, and Hazard Communication.

#### **Auditor's Guidelines:**

##### **Records to Review**

- Inventory of pesticides stored onsite
- Pesticide disposal documentation
- Any emergency exemption granted to the NPS by the EPA
- Pesticide Applicator, IPM, and HazCom Training records
- MSDSs for pesticides
- Pesticide application records
- Certification of pesticide applicators

##### **Features to Observe**

- Pesticides labels
- Pesticide storage areas
- Personal protection equipment
- Pesticide application equipment
- Signs or fencing used to prevent access to areas during spraying

##### **Persons to Contact**

- IPM coordinator
- Roads and Trails crew
- Others with pesticide storage and application responsibilities

## DEFINITIONS

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*Certified applicator:* Any individual (private or commercial) who is certified under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to apply restricted use pesticides.

*Direct supervision:* There must be verifiable instructions and provisions for contacting the certified applicator if s/he is needed in the case where individuals applying restricted use pesticides are working under the direct supervision of a certified applicator. Note that in some situations, as required by the pesticide label or by state regulations, the actual physical presence of a certified applicator may be necessary.

*Integrated Pest Management (IPM):* The selection, integration, and implementation of pest management methods based on predicted economic, ecological, and sociological consequences. IPM can also be defined as a decision-making process which helps one decide if a treatment is necessary and appropriate, where the treatment should be administered, when treatment should be applied, and what strategies should be integrated for immediate and long-term results.

*Pest:* A population of organisms that interferes with the purposes of the park.

*Restricted use pesticide:* EPA may classify a pesticide as “restricted use” because of its potential impact on health or the environment, or because of its formulation. Restricted use pesticides can be purchased and applied only by a certified applicator, or by a person under the direct supervision of a certified applicator.

*General use pesticides:* Pesticides not classified as restricted use.

## LEGAL REQUIREMENTS

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### Federal

Federal legislation for pesticide use is found in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as amended (e.g., by the 1972 Federal Environmental Pesticides Control Act). Under this law, the Environmental Protection Agency (EPA) is responsible for ensuring that persons who manufacture, market, formulate, distribute, use, or dispose of pesticides and pesticide containers, do so in an environmentally sound manner. These regulations are found in 40 CFR 152-186 as follows:

- 40 CFR 152 - Definitions and classification of pesticides
- 40 CFR 156 - Labeling
- 40 CFR 171 - Certification of persons who apply restricted use pesticides

Waste pesticide may be managed by the Resource Conservation and Recovery Act (RCRA) (40 CFR 260-272) or the Standard for Universal Waste Management (40 CFR 273).

### State and Local

State regulations and local ordinances may affect pesticide management, and may be more stringent than federal regulations.

## Department of the Interior and National Park Service Policy

The NPS has guidance regarding pesticide management in NPS-77, Chapter 2 on Integrated Pest Management (IPM). Details on the NPS IPM program follow in the next section.

### COMPLIANCE REQUIREMENTS

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#### Park IPM Program and Federal Pesticide Management

Following are requirements of the NPS IPM program and Federal Pesticide Management requirements:

##### *Approval for Pesticide Use*

If there is a pest management problem, employees or others (concessions, contractors or other third parties operating in the park) should notify the park IPM coordinator before taking any action. It is the park IPM coordinator's responsibility to determine what action should be taken, such as using pesticides.

All requests for the use of any pesticides must be submitted by the IPM coordinator annually using the Pest Management Program Report (Form 10-21A). Requests at park level should begin with the park's IPM coordinator, but may be forwarded to other departments, up to the Washington Office. Pesticide use must ultimately be approved by the NPS region; each approval expires December 31 of the year of approval. If pesticide use is anticipated during the coming year, the park IPM coordinator fills out and submits Form 10-21A, with the superintendent's approval, at least 60 days before pesticide application will take place. If pesticide use cannot be anticipated, rapid approval can be obtained by the telephone, or using the Pest Module on the Common Database.

##### *Purchase and Use*

The park should purchase only the amount of pesticide authorized for use during the year of approval. The only exception to this rule is if the smallest amount of pesticide available for purchase is larger than the amount necessary for approved projects.

Anyone applying *restricted use* pesticides must be properly certified. The park IPM coordinator must ensure that only a certified applicator is applying restricted use pesticides, or those under the direct supervision of a certified applicator are applying restricted use pesticides in the park.

All pesticides must be used in accordance with label instructions, and should be applied so as not to contact non-handlers (e.g., visitors, individuals not involved in applying pesticides). **Unless the label specifies otherwise**, those mixing, loading, applying, and cleaning up pesticides should wear protective goggles or face shields, rubber or neoprene gloves, an impervious cap with a brim and drip guard, long pants, a long sleeve shirt, and rubber boots. Mixers and loaders should also take the additional precaution of wearing an impervious apron. Pesticide application equipment should never be worn home or washed in home laundry facilities.

Pesticides should never be transported inside a cab or passenger compartment of a vehicle; instead, they should be securely stored inside an impervious, lockable container in the trunk or bed of the vehicle. Copies of the pesticide label and Material Safety Data Sheet should be at the site where pesticides are being applied.

If the pesticide label specifies a period of time during which unprotected individuals cannot enter a pesticide-treated area, the park must post signs warning visitors and others not to enter the treated area. The signs must include the following information:

- That the area was treated with a pesticide;
- When it was treated;
- When the area may be re-entered by unprotected individuals;
- What materials were used; and
- The name and telephone of a contact person.

#### *Storage*

Pesticide storage facilities must have proper warning signs (e.g., sign reading “Pesticide Storage Locker”) and be locked, fireproof, ventilated. Pesticides must be stored separately from other substances, such as cleaning chemicals, petroleum products, and paints. In addition, each type of pesticide must be stored on a separate shelf; for instance, herbicides should be stored on a separate shelf from insecticides.

#### *Disposal*

Since the NPS limits the amount of pesticide that can be purchased, there should be little, if any, pesticide of which to dispose. However, if small quantities of mixed pesticides remain, the remaining amount and any rinseate from the container or spray equipment should be applied to the pesticide-treated area. Otherwise, the pesticides can be surplused, given to another agency, or disposed of according to federal, state, and local regulations and pesticide label instructions.

If waste pesticide is generated, parks should determine if the waste could be recycled in accordance with the Universal Waste Rules (40 CFR 273). Pesticides that can be recycled under the Universal Waste Rules include those which have been recalled and stocks of unused pesticide products that are collected and managed as part of a waste pesticide collection program (see the Universal Waste Management Check Sheet, for more information). If waste pesticides cannot be recycled under the Universal Waste Rules, they must be disposed of in accordance with their label directions and any additional state or local regulations.

#### *Recordkeeping*

Each year, the park must submit a report to the region that documents what pesticides were used in the park and the amount used. If pesticides are donated to another agency, this should be documented and these records should be kept for a minimum of three years.

#### *Training*

Park IPM coordinators must attend a 40-hour NPS IPM course.

### **POLLUTION PREVENTION**

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- Pursue organic/non-toxic solutions to pest problems as a first priority.
- Purchase pesticides from companies that will pickup (or accept returned) waste pesticides.
- Store all pesticides and pesticide wastes in designated secure areas.
- Provide appropriate spill response equipment and personal protective equipment.
- Purchase only the amount needed for each specific project so that there will be no waste. Do not stockpile.
- Do not purchase more than a one-year supply of pesticide when frequent applications are necessary.
- Transfer excess pesticides to other parks or other agencies.

**FOR MORE INFORMATION**

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- NPS-77 Natural Resource Management, Chapter 2 on Integrated Pest Management.
- NPS IPM Coordinators (Service-wide, Regional, and Park), 202-219-8936 or 1-970-225-3542.
- NPS EnviroCheck Sheet on Respiratory Protection.
- NPS EnviroCheck Sheet on Hazard Communication.
- NPS Hazardous Waste Team. 1-202-565-1240 (x3).
- NPS EnviroCheck Sheets on: Universal Waste Management and Hazardous Waste Management.



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## Environmental Audit Program

### EnviroCheck Sheet

*Pesticide Management  
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CHECKLIST ITEM	PRIORITY	NOTES
<i>Approval for Pesticide Use</i>		
1. If pesticides are applied at the park, the park has a designated IPM coordinator at. [NPS-77, IPM-Roles and Responsibilities, Section II. Park IPM Coordinator]	2	
2. The IPM coordinator submits a Pest Management Program Report Form 10-21A annually to request the use of any pesticides at the park for the upcoming year. [NPS-77, IPM-Program Guidance, Section I. Pesticide Review Process, Subsection A]	2	
3. Pesticide approval is obtained via other means (e.g., phone call, Pest Module on the Common Database) if rapid pesticide approval is needed. [NPS-77, IPM-Program Guidance, Section I. Pesticide Review Process, Subsection A]	2	
<i>Purchase and Use</i>		
4. A certified applicator conducts or directly supervises application of restricted use pesticides. [40 CFR 171.4, NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection A]	1	
5. Pesticides are used in accordance with label instructions. [NPS-77, NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection C]	1	
6. All pesticide use at the park is reported annually on a Pesticide Use Log Form submitted through the regional IPM coordinator to the Washington Office. [NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection D]	2	
7. Only the amount of pesticide authorized for usage during the year is purchased, unless the smallest amount available for purchase is larger than the amount necessary for approved projects. [NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection E]	2	
8. Pesticides are transported inside a lockable container in the trunk or bed of a vehicle. [NPS-77, IPM, NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection H]	2	
9. Copies of the pesticide label and MSDS are maintained at the site where pesticides are being applied. [NPS-77, NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection H]	2	
10. Applicators of pesticides wear protective goggles or face shields, rubber or neoprene gloves, an impervious cap, long pants, a long sleeve shirt, and rubber boots during mixing, loading, application, and cleanup, unless the label specifies otherwise. [NPS-77, NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection H]	1	
11. Pesticides are applied so as not to contact non-handlers. [40 CFR 170.210(a)]	1	

This document does not necessarily contain all information needed to determine compliance status.

CHECKLIST ITEM	PRIORITY	NOTES
<p>12. If there is a period of time during which unprotected individuals should not enter a pesticide-treated area, signs, which include the following information, are used:</p> <ul style="list-style-type: none"> <li>The area was treated with a pesticide.</li> <li>When the area was treated.</li> <li>When the area may be re-entered by unprotected individuals.</li> <li>What materials were used.</li> <li>Name and telephone number of a contact person.</li> </ul> <p>[NPS-77, NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection H]</p>	1	
<b>Storage</b>		
13. Pesticide storage areas are locked, fireproof, and ventilated, and proper warning signs are posted. [NPS-77, NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection F]	2	
14. Pesticides are stored separately from all other substances (e.g., cleaning fluids, paint, solvents, other chemical substances). [NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection F]	2	
15. Each type of pesticide is stored on separate shelves (e.g., insecticides separate from herbicides). [NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection F]	2	
<b>Disposal</b>		
16. Waste pesticides are disposed of in compliance with their labels and federal, state, and local regulations. [NPS-77, IPM-Program Guidance, Section IV. IPM Program Operations, Subsection G]	2	
<p><i>Universal Waste Requirements</i></p> <p><i>Questions 17-23 apply if the state in which the park is located has adopted the federal universal waste regulations, and includes waste pesticides in its program. See the Universal Waste Check Sheet for a complete explanation of terminology used in these questions.</i></p>		
17. Universal waste pesticides are managed in a way that prevents releases to the environment by storing them in containers that remain closed, structurally sound, compatible with the pesticide, and lack evidence of leaks or damage that could cause leaks. [40 CFR 273.13(b)]	2	
<p>18. <i>Recalled</i> universal waste pesticides are held in a container (or a multiple container package unit), tank, transport vehicle, or vessel, with <b>both</b> of the following:</p> <ul style="list-style-type: none"> <li>The label that accompanied the product as sold or distributed.</li> <li>The words “Universal Waste - Pesticide(s)” or “Waste Pesticide(s).” [40 CFR 273.14(b)]</li> </ul>	2	
<p>19. <i>Unused</i> universal waste pesticides in a container (or multiple container package unit), tank, transport vehicle, or vessel, with <b>both</b> of the following:</p> <ul style="list-style-type: none"> <li>The label that was on the product when purchased. If it is illegible or unavailable, use the appropriate label as required under U.S. Department of Transportation (DOT) regulations at 49 CFR Part 172. If use of such a label is not feasible, use another label prescribed or designated by a pesticide collection program.</li> <li>The words “Universal Waste - Pesticide(s)” or “Waste Pesticide(s).” [40 CFR 273.14(c)]</li> </ul>	2	

20. Universal waste pesticides are accumulated for no more than one year. Accumulation time may be demonstrated by one of the following: <ul style="list-style-type: none"> <li>• Placing the universal wastes in a container and label it with the earliest date that any contents became wastes or were received;</li> <li>• Marking each individual item of universal waste with the date it became a waste or was received;</li> <li>• Maintaining an on-site inventory system that identifies the earliest date that any universal waste in a group of universal waste items or containers became a waste;</li> <li>• Placing the universal wastes in a specific accumulation area and identify the earliest date that any universal wastes in the area became wastes; and</li> <li>• Using any other method that clearly demonstrates the length of time that universal wastes have been accumulated, from the date they became wastes.</li> </ul> [40 CFR 273.15]	2	
21. All employees who handle, or have responsibility, for managing universal waste pesticides are informed of the proper handling and emergency procedures appropriate to pesticides. [40 CFR 273.16]	2	
22. All releases of universal waste pesticides and their residues are immediately contained. [40 CFR 273.17]	2	
23. Off-site shipments of universal waste pesticides are sent only to another universal waste handler, such as a community household hazardous waste collection site, or approved universal waste destination facility. [40 CFR 273.18]	2	
<b>Recordkeeping</b>		
24. An annual report is submitted to the NPS region, documenting pesticides used in the park, and the amount used. [NPS-77, IPM, Program Guidance IV-D]	2	
25. If surplus chemicals and pesticides are donated to another federal agency, the donation is documented and records kept for three years. [NPS-77, IPM, Program Guidance IV-G]	2	
<b>Training</b>		
26. Park IPM coordinators have undergone a 40-hour NPS IPM training course. [NPS-77, IPM, Roles and Responsibilities II]	2	